

ABSTRACT:

Digital transmission system for transmitting a digital audio signal being in the form of samples of a specific wordlength and occurring at a specific sampling rate.

A digital transmission system is disclosed having a transmitter (11) and a receiver (12) for transmitting and receiving a digital audio signal. The digital audio signal is in the form of samples of a specific wordlength (WL) and occurring at a specific sampling rate. The transmitter comprises

- 5 an input terminal (25,30,32) for receiving the digital audio signal and for receiving a first information word ( $IW_1$ ) having a relationship with the specific wordlength and a second information word ( $IW_2$ ) having a relationship with the specific sampling rate. A formatting unit (28) is present for combining the digital audio signal and the first and second information words into a serial datastream suitable for transmission via a transmission
- 10 medium (TRM,12). The wordlength (WL) of the samples in the digital audio signal, expressed in number of bits, being equal to  $n$ , where  $n$  is an integer larger than zero, and the sampling rate is equal to  $2^p \cdot F_s$ , where  $p$  is an integer larger than zero and  $F_s$  is equal to a frequency value taken from a group of at least two frequency values, said group of frequency values including 44.1 kHz and 48 kHz.

- 15 The receiver comprises a sample rate converter (41) for converting the sampling rate of the signal received.(Fig.1)